

FEDERAL ACTION PLAN FOR THE CALIFORNIA BAY-DELTA: 2011 AND BEYOND

Introduction

The Obama Administration from its outset has recognized the significance of California's water problems and most particularly the critical and deteriorating state of the Sacramento/San Joaquin River Delta – San Francisco Bay Estuary (Bay-Delta) and the related increasing challenges to reliable water deliveries through the Delta. In the fall of 2009, six Federal agencies – the Department of the Interior (DOI), Department of Commerce, Department of Agriculture (USDA), Department of the Army, Environmental Protection Agency (EPA), and the Council on Environmental Quality (CEQ) – signed the California Bay-Delta Memorandum of Understanding (MOU). The MOU established a cabinet-level Federal Leadership Committee to coordinate the Federal response to the California water crisis and to facilitate a partnership with the State of California in addressing California's water supply and environmental challenges. The Committee, led by DOI Secretary Ken Salazar and CEQ Chairwoman Nancy Sutley, released an Interim Action Plan for the Bay-Delta in December, 2009, that called for a broad array of Federal initiatives to address these challenges. The Committee continues to actively oversee the implementation of this broad Federal effort.

A centerpiece of the Federal Interim Action Plan was reenergizing the State-Federal partnership in addressing the state's water crisis. The most important focus of that partnership has been the development of the proposed Bay Delta Conservation Plan (BDCP). The BDCP is collaborative effort to develop a 50-year plan to achieve the twin objectives of a healthy Bay Delta and a reliable water supply for south of Delta water users. It is the keystone for achieving long-term restoration and protection of the Bay Delta ecosystem and California's water supply system. DOI, through the Bureau of Reclamation and the Fish and Wildlife Service (FWS), and the Commerce Department, through the National Marine Fisheries Service (NMFS), are spearheading the significantly enhanced Federal engagement on the BDCP.

This Update sets forth the principles that guide the Federal government's engagement in and commitment to the BDCP. It also describes the Federal agencies' positions regarding key issues that are being developed in the BDCP, and notes several important issues on which critical work is ongoing.

Several fundamental facts guide the Federal government's actions regarding the BDCP. First and foremost, the status quo of the Bay-Delta is, by many measures, unsustainable and unacceptable. The ecosystem is crashing and the water supplies traveling through the Delta are not reliable. The risks of a seismic event sometime in the next 50 years that would submerge both Delta islands and water infrastructure, disabling Central Valley Project (CVP) and State Water Project (SWP) facilities, is very large. And climate change, bringing rising sea levels, also requires major action to protect both the water delivery system and the lands and ecosystem as a whole.

This Update is intended to be read in conjunction with the **California Natural Resources Agency's**

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newly released report entitled [REDACTED] that describes the BDCP and its history, and outlines the major components of the State's anticipated 2011 proposal for the BDCP. This Update is also intended to help ensure that work on the BDCP and other efforts to address the State's water problems do not flag as the State of California transitions to a new Governor and state Administration.

This Federal BDCP Update is intentionally more limited in scope than the larger state BDCP document. Although Federal agencies have been and will continue to work closely with the State and other stakeholders to advance a successful BDCP, state and Federal agencies play very different roles with respect to the BDCP. The BDCP is a state plan. The State's Natural Resources Agency, owner and operator of the SWP, is the permit applicant for the BDCP, and both FWS and NMFS are regulatory agencies that must review the State's BDCP application and make decisions whether and/or under what conditions to grant the State a permit. The Bureau of Reclamation (BOR), as owner and operator of the CWP, works closely with the State's Natural Resource Agency, but it is not a Section 10 permit applicant. Instead the Bureau is subject to Section 7 requirements. Other Federal agencies such as the Army Corps of Engineers and EPA will also be involved in regulatory decisions on the BDCP.¹ All Federal regulatory agencies that will make or participate in regulatory determinations on any aspects of the BDCP necessarily sit at arm's length from the BDCP process so that they can approach their regulatory obligations in an independent and science-based manner.² Each Federal agency will make their own, independent decisions. For example, approval of the HCP by the FWS and NMFS does not guarantee a permit by the USACE.

This Update also provides a brief review and update of the six Federal agencies' progress to date in carrying out the Federal Bay-Delta Action Plan, and presents the agencies' top priorities for addressing water conservation and efficiencies, water quality and other stressors, assistance to farmers

¹ As the BDCP is essentially an aquatic habitat conservation plan, with most actions occurring in either tidal waters or federally navigable waters, many actions will require permits to be issued by the U.S. Army Corps of Engineers (USACE) under either §10 of the River and Harbor Act of 1899, 33 USC §403 [structures or "work" in navigable waters of the U.S. that may affect the course, condition, or capacity of such navigable waters], and/or §404 of the Clean Water Act, 33 USC §1344 [discharge of (clean) dredged or fill material in waters of the United States]. Additionally, there are some actions contemplated which would involve modifications to existing USACE civil works projects. These require authorization by the Chief of Engineers, pursuant to §14 of the River and Harbor Act of 1899, 33 USC §408. [NEEDS TO BE SHORTENED AND INCLUDE REFERENCE TO EPA]

² The views of Federal agencies expressed in this report are preliminary and subject to change as new information becomes available. They are not "decisions" or "final decisions" of the agencies and should not be so construed. Furthermore, a number of federal agencies have formal regulatory review and permitting authorities associated with numerous actions encompassed by the BDCP and specific criteria by which to exercise those authorities. At this juncture in the planning process, no decisions have or can be made on the outcome of those regulatory reviews. All of the representations in this report must be understood are very preliminary and are not intended to prejudice the outcome of those reviews.

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and other actions going forward.

As noted above, the BDCP is intended to be a specific plan for addressing the long-term co-equal goals of Bay Delta ecosystem restoration and water supply reliability. The Obama Administration also is developing a near-term plan to advance these goals as aggressively as possible during Water Year 2011. We expect to issue this plan by mid-February 2011, when the initial Federal water allocations are made.

Constructing a Long-term Habitat Conservation Plan for the Delta: Federal Perspectives on the Bay Delta Conservation Plan (BDCP)

The Need For An Isolated Water Conveyance Facility

The crisis facing California's Bay-Delta is both severe and well-documented.³ The health of this biologically diverse ecosystem is in serious decline, and several fish populations are trending downward to dangerously low levels. One species, the Delta smelt, has declined so severely that extinction is a distinct possibility. At the same time, the through-Delta water delivery system that was built generations ago to serve a state population less than half [CHECK ?] what it is today is unreliable and at risk of catastrophic failure due to earthquakes, levee breaches, other natural disasters and the effects of climate change. California's rapid development during the twentieth century led to the creation of a water system that withdraws vast amounts of freshwater from the Delta. In addition, most wetland, marsh, and riparian areas have been eliminated, and discharges of contaminants from agricultural and rapidly growing urban areas have dramatically increased as the area's population has grown.

Although this highly-engineered system has met both the water needs and the ecosystem-related needs of Californians for many decades, in its present state and at its current method of operations it clearly is no longer adequate to sustainably meet either the needs of the Bay-Delta ecosystem or the human needs for reliable water deliveries. In addition to the immediate problems already plainly apparent, climate change poses perhaps the biggest challenge of all for the future. See Figure _____. USGS Map Showing Area of Potential Inundation from a One Meter Rise in Sea Level. As the National Research Council Committee on Sustainable Water and Environmental Management in the California Bay-Delta stated:

In the longer term, climate change presents uncertainties and challenges with its

³ See, e.g., "Comparing Futures for the Sacramento-San Joaquin Delta," Lund et al., (2010) pp. 8-14. [additional cites]

anticipated impact on precipitation, snowpack, streamflow, and rising sea level, which will affect not only salinity and riparian habitats in the delta but likely also will threaten the integrity of the extensive system of levees (1,100 miles in length).

“A Scientific Assessment of Alternatives for Reducing Water Management Effects of Threatened and Endangered Fishes in California’s Bay-Delta,” National Research Council (2010), p. 13. In addition, modeling done in connection with the BDCP anticipates that climate change will reduce the amounts of water available for deliveries. [cite?]

There is a growing scientific and political consensus that the status quo of the Delta and the water delivery system through the Delta are no longer viable. Something must be done because the present system is unsustainable. As several renowned Bay-Delta scientific experts noted recently,

The Delta faces inevitable changes that make present water policies unsustainable. Rising sea level, continued land subsidence, earthquakes, invasive species, and a worsening climate for floods are among the changes that will overwhelm current Delta management for local agriculture and statewide water supply. With major undesirable consequences foreseen for almost all stakeholder interests, current Delta management implies its own demise.

Lund, et al., supra, p. xii. Similarly, the Delta Vision Blue Ribbon Task Force created by Governor Arnold Schwarzenegger’ with a mandate to “develop a durable vision for sustainable management” of the Delta, noted in 2008 that the Delta is “critically important” to California, and it “cannot be sustained as we know and use it today.” [Delta Vision, p. 7.] The Delta Vision laid out the “co-equal goals” of a healthy Delta ecosystem and a reliable water supply for California that have since become the cornerstone of both the state’s recently-enacted water legislation, and the BDCP.

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Fundamentals of the BDCP

The BDCP is a proposed 50-year plan for the conservation and management of aquatic and terrestrial species listed under the Federal and California Endangered Species Acts (ESAs), and the natural communities upon which they depend, within the California Bay-Delta. The BDCP is both a habitat conservation plan (HCP) under the Federal Endangered Species Act and a

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Natural Communities Conservation Plan (NCCP) under the California Natural Communities Conservation Planning Act.

Approval and implementation of the BDCP would require a number of Federal approvals and permits. FWS and NMFS are the lead Federal Agencies for the development of the HCP, which would provide “take” authorization under section 10 of the Endangered Species Act. The proposed action in the HCP would also serve as the preferred alternative in the EIS/EIR. Components of the proposed action in the HCP would also be evaluated as the proposed actions for USACE permits. An EIS/EIR would be done for NEPA/CEQA compliance for all of the Federal Agencies decisions. FWS, NMFS and BOR are the lead federal Agencies, and USACE and EPA are cooperating agencies for the EIS. This EIS/EIR would provide NEPA compliance for the decisions of all the Federal agencies. USACE has the authority to approve or deny portions of the BDCP subject to their jurisdiction under section 404 of the Clean Water Act and section 10 of the Rivers and Harbors Act of 1899. USACE also has the authority to approve or deny portions of the BDCP which impact certain flood control projects under section 14 of the Rivers and Harbors Act of 1899. Between these two regulatory programs nearly all of the BDCP falls under USACE jurisdiction. The EPA has oversight and regulatory responsibilities under NEPA and sections 401 and 404 of the Clean Water Act. FWS and NMFS would prepare several biological opinions under section 7 of the Endangered Species Act for the various Federal decisions and permits.

The core elements of the proposal (the proposed action in the HCP) include the following:

- 1) an isolated water conveyance facility to move water from north of the Delta to south of the Delta, together with criteria to manage the operation of the facility;
- 2) substantial measures to restore and protect tidal marsh, floodplain, and riparian habitat;
- 3) measures to address actions other than water diversions (known as “other stressors”) that adversely affect the ecosystem and listed species; and
- 4) a detailed monitoring and adaptive management plan that measures biological advances resulting from the BDCP and provides sufficient flexibility to ensure that the imperiled species will continue on a path toward recovery throughout the 50-year period of the permit granted under the BDCP.
- 5) [ADD SOMETHING RE: ASSURANCES]

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[PERHAPS ADD SOMETHING RE: BDCP, LIKE ALL HCPS, IS A TRADE-OFF WHERE WATER USERS PROVIDE MAJOR INVESTMENT IN FACILITY AND LARGE-SCALE HABITAT RESTORATION THAT WILL LEAD TO SPECIES RECOVERY IN RETURN FOR COMMENSURATE ASSURANCES...]

If the BDCP is approved by the pertinent Federal and state agencies, the resulting permit will allow water operations of the isolated facility under the Federal ESA and the California Natural Community Conservation Act for an anticipated period of 50 years. The long time period of the anticipated permit, which necessarily entails vast uncertainties concerning ecological and human activities many decades from now, underscores the importance of including a very robust adaptive management plan that will conserve the species through a wide range of potential scenarios, including sea level rise and warming, earthquakes, levee failures, and other events that are unlikely in the short-term but quite likely to occur at some point during the next 50 years.

Principles for Federal Engagement in BDCP

1. **Support for Co-Equal Goals:** The Federal agencies strongly support the dual objectives of the BDCP of restoring both the ecological health of the Delta and water supply reliability for the agricultural and municipal communities which depend upon it for all Californians. This is consistent with principles recently adopted by the State legislature.
2. **Intensive Federal Engagement and Commitment to Success:** The agencies are committed to continuing their close partnership with the State in both its applicant (Department of Water Resources) and reviewer (Delta Stewardship Council, Department of Fish and Game) capacities. Federal Agencies are also committed to continuing the ongoing collaborative planning effort for the BDCP and to working closely with other stakeholders to achieve success.
3. **Use of Best Available Science and Independent Scientific Reviews:** The Federal agencies are committed to using best available science in both the development of a scientifically sound BDCP and the regulatory review of the BDCP. The agencies support timely independent scientific reviews (by, for example, the National Research Council, the Delta Science Program, and the Delta Independent Science Board) to assist in developing and carrying out the plan. Such reviews are particularly important, given the extraordinary complexity, importance, and cost of the BDCP. Toward that end, DOI and Commerce have requested that the National Research Committee prepare a short report assessing the adequacy of the use of science and adaptive management in the

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initial public draft of the BDCP by April 2011. In addition, in response to the April 2010 Bay-Delta report by the National Research Council, DOI and the Commerce Department also have developed and are implementing both a short-term and a long-term integrated science program for the Bay-Delta in furtherance of the co-equal goals and the successful development and implementation of the BDCP. Finally, as described more fully below, the Federal agencies recommend that development of the proposed Rio Vista Coordinated Science Center be included as a part of the proposed BDCP.

4. **Placing Threatened and Endangered Species on the Path to Recovery:** A successful BDCP must ensure compliance with both Section 7 (no jeopardy to species or adverse modification of critical habitat) and Section 10 (habitat conservation plan) of the Federal ESA. Thus, it must be a plan that goes farther than simply avoiding jeopardy to listed species and adverse modification to critical habitat. The BDCP must also provide for the conservation of listed species, that is, it must place listed species on the path to recovery. As noted elsewhere, since the BDCP is intended to be a NCCP, it must also comply with the California Natural Community Conservation Act. [Add sentence re: recovery reqmt of NCCPA]
5. **Transparency, Public Input, and NEPA Compliance:** The Federal Agencies support open public processes and reviews throughout the course of the BDCP planning process to improve the plan and ensure broad public understanding of the plan and its impacts. The Federal Agencies believe that broad public involvement and support is necessary for the most effective implementation of the plan and for achieving the co-equal goals for the Bay-Delta.

The BDCP must comply with NEPA and California's equivalent law, the California Environmental Quality Act. Federal Agencies endorse the "purpose and need" description previously provided in ___ Fed. Reg. ___ (Feb. 13, 2009) and further explained in the October 26, 2010, letter sent to EPA by the Regional Directors of the Bureau of Reclamation, FWS and NMFS. [CHECK W/ EPA ET AL.!] A reasonable range of alternatives for achieving that purpose and need must be presented in the Environmental Impact Study/Environmental Impact Report (EIS/EIR) and the environmental effects of those alternatives must be analyzed. Figure ___ attached hereto contains a chart of alternatives that will be included for analysis in the EIS/EIR. Additional alternatives are being reviewed at this time and may also be included for

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analysis in the EIS/EIR. As stated in that letter, the agencies

intend that the EIS/EIR evaluate a range of alternatives designed to achieve both a more reliable water supply for the [Federal Central Valley Project] and [State Water Project] and restoration of the Delta ecosystem. Consistent with Federal law . . . , the alternatives must represent a reasonable range of potential conveyance configurations, water operations, habitat restoration measures, and measures to reduce other stressors capable of achieving the two coequal goals of water supply reliability and Delta ecosystem restoration.

Core Elements of the Proposed BDCP

The Federal agencies identify below key issues, the degree to which the agencies are satisfied that they are being adequately addressed at this time, and Federal perspectives on further refinements that might be appropriate to address the issues.

1. **Scope and structure of the BDCP:** The Federal agencies will continue to approach the operation of the state and federal water projects as an integrated whole, including those aspects of the projects upstream of the Delta that are outside of the geographic four corners of the proposed BDCP. The agencies further note their expectation that the BDCP will continue to evolve over the course of the planning and public review process.
2. **Biological Goals and Objectives:** FWS and NMFS will apply their “5-Point Policy” for HCPs (65 Fed. Reg. 35242 (June 1, 2000)) to the BDCP. Consistent with that policy, FWS and NMFS believe that the BDCP must be a “results-based” HCP that takes into account the high degree of uncertainty of outcomes of conservation measures and provide adequate monitoring and adaptive management mechanisms for adjusting measures to achieve the desired outcomes. To that end, the BDCP should include clearly defined and scientifically supported biological goals and objectives, an effective monitoring plan, an adaptive management plan that tests alternative strategies for meeting those goals and objectives, and a framework for adjusting future conservation actions, if necessary, based on what is learned.

The FWS and NMFS support the general framework of the proposed BDCP Adaptive Management Plan and believe it contains the essential components to guide the implementation and adjustment of the plan over the course of implementation. The essential next steps in framing the program, as recognized by the stakeholders, are the infusion of the metrics and monitoring components for it, and the appropriate triggering

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mechanisms for adjustments, as implementation proceeds. The agencies believe that steady progress on this plan component is essential. Work to define biological goals and objectives is ongoing.

- 3. Effects Analysis:** All of the parties recognize the essential role of a scientifically robust analysis of the effects of the proposed plan and alternatives in order both to inform good decisions and to ensure that they are scientifically sound and legally defensible. Not surprisingly, modeling the biological and water supply effects in a very complex system over a 50 year time period is extremely complicated and difficult. Work on the effects analysis is continuing, with input from BOR, FWS and NMFS, and adjustments and improvements are being made. The Federal agencies will continue to work with the state and other parties to ensure that a sufficiently broad range of potential operational scenarios is analyzed in the effects analysis.

4. New North Delta Conveyance:

One major FWS and NMFS concern associated with the proposed new facility which is pertinent to the sizing issue relates to the performance of the diversions and screening structures themselves. The scale of the proposed diversion and intake structures is unprecedented, and they pose significant engineering challenges. The proposal described in the [the state's document] calls for five 3,000 cfs intake structures along the banks of the Sacramento River, each up to 1700 feet long, i.e., more than one and one-half miles of fish screens and water intakes. In light of the uncertainties involved, the Federal Agencies anticipate that solutions will continue to evolve during the planning and implementation phases, and therefore support retaining maximum flexibility to adapt to these new solutions as they evolve. At the same time, Federal Agencies will make every attempt to accommodate the permit applicants' need for certainty and desire to obtain a permit at the outset for the full facility.

At this juncture it appears likely that FWS and NMFS will recommend a performance-standards approach to the diversion and intake structures, whereby the plan would establish operational performance standards governing the diversions (expressed in terms of screening performance criteria, bypass flows, predation rates and other relevant metrics that will account for the direct and indirect effects of the diversions). Once these performance standards are articulated, the parties would be accorded considerable engineering flexibility to design, build, test, and adjust those

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designs, to meet these performance standards. Full build-out of the diversion capacity of the system would likely be conditioned on the demonstrated ability of the diversion structures, individually and cumulatively, to meet these performance standards. As a corollary to this approach, the FWS and NMFS are likely to recommend a phased approach to the design and construction of these facilities in order to test out what works and avoid unacceptable species impacts and stranded investments if the performance of the initial units prove insufficient.

5. **Long-term Operational Criteria.** A central feature governing the acceptability of a final BDCP is the long-term operational criteria that will govern how the CVP and SWP are operated, both before and after construction of the isolated conveyance facility is completed. These operational criteria are expected to directly affect the ability of the plan to achieve its dual goals. Given the complexities of this 50-year HCP, Federal agencies have always anticipated that the effects analysis would have to be carried out in an iterative manner, with successive revisions and refinements shaped by each round of modeling results. The iterative stage of the effects analysis is underway and good progress is being made. Modeling of various scenarios is occurring and modeling results are encouraging. Subject to additional modeling results, at this time scenarios that take into account some restrictions that may be necessary to improve fish survival and recovery may make significantly more water available for export than under the status quo.

This iterative effects analysis must be completed in order to delineate operational criteria to govern the system for the long-term. In framing a set of long-term operating criteria, the Federal agencies support the concept of establishing a broad adaptive management range (sideboards) with an initial adaptive management operational range within the broad adaptive management sideboards, and an initial operation within the operational range. The upcoming review by the National Research Council will likely provide useful input on these issues.

6. **Habitat Restoration:** The Federal agencies generally support the multiple components of the BDCP habitat restoration program as currently conceived. Some of the concerns that we have regarding habitat restoration include: (1) that habitat restoration under the BDCP should be no less timely or substantial than the habitat restoration required by the current biological opinions; (2) habitat restoration will be phased such that substantial restoration occurs before operations of the proposed isolated facility

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commence, unless the agencies determine that an alternative plan for habitat restoration is preferable; (3) provision should be made in the BDCP assuring that adequate funding will be provided for habitat restoration; (4) the robust monitoring and adaptive management programs of the BDCP should allow for significant revisions to habitat restoration requirements based on new data and circumstances, and that (5) the habitat restoration will not adversely impact flood risk or capacity of any bypass or channel to accommodate flood flows. The agencies acknowledge that the predictability and quantification of the ecological benefits anticipated from these program elements vary across the various habitat types and across species, as recognized by the parties and others, including the National Research Council and other independent science authorities [Add more on anticipated effects on water supplies and non-target species.]

- 7. Other Stressors:** As underscored in the Federal Interim Action Plan, the Federal agencies believe that actions to address the most significant other stressors adversely affecting the Bay-Delta are imperative for the long-term sustainability of the ecosystem. While the BDCP addresses other stressors, there is limited ability within the four corners of the BDCP to effect measures that are not within the direct control of the parties to BDCP. The agencies note the considerable uncertainties associated with the other stressor measures contained in the current draft BDCP, and encourage continued refinement of them over the course of the planning process to enhance their specificity, their likely benefits, and their ultimate ability to provide discernible benefits to the ecosystem. This part of the draft BDCP remains an important work in progress.

Beyond the scope of the BDCP, the Federal Agencies are pursuing actions within their authorities to mitigate the impacts of other stressors, including their near-term and long-term integrated science plans, and other actions described further below. The agencies look forward to working with other entities such as the Delta Stewardship Council to ensure that the impacts of other stressors are addressed.

- 8. Regulatory Certainty and “Assurances:”** The FWS and NMFS are committed to providing “no surprises” assurances consistent with the Endangered Species Act, taking into account the many uncertainties associated with the BDCP relating to ecological changes in the Bay-Delta over the 50-year permit period and the ecological benefits that will result from the BDCP. FWS and NMFS believe that due to the joint Federal-State operations of CVP/SWP, it would be very beneficial if Federal and state water contractors could be granted equivalent “assurances,” i.e., that under the BDCP they

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would have equivalent obligations and assurances regarding the consequences flowing from fulfilling their obligations, provided such equivalence can be provided consistent with all applicable laws. Furthermore, FWS and NMFS believe that there should be an agreed upon robust “cure duty” or contingency plan spelling out steps to be taken to avoid jeopardy to listed species and potential permit revocation.

Next Steps on BDCP

1. **Continue the Ongoing Collaborative Process:** The Federal agencies support proceeding aggressively with the completion of the BDCP planning process. The agencies further believe that a collaborative approach to planning represents the best approach to success. The agencies recognize the State’s strong leadership of the current BDCP process, and are hopeful that the incoming state administration will pick up BDCP baton immediately when the current administration leaves. In the meantime, Federal Agencies will continue actively to advance the planning for a legally defensible and scientifically sound conservation plan for the Bay Delta.
2. **Include the Rio Vista Collaborative Science Center and Native Fish Restoration Facility in the BDCP:** [to be inserted by FWS]
3. **Pursue the Federal Near-term Science Initiative:** [to be reviewed, clarified and revised as needed by FWS and NMFS] The Federal agencies will continue to pursue a suite of near-term science initiatives over the course of 2011 focused on turbidity and sediment transport studies to improve our understanding of key triggers and decision criteria in the current BiOps that affect water operations. These studies are also intended to provide a basis for evaluating the viability of turbidity management approaches to controlling delta smelt entrainment. All permitted near-term studies are expected to produce results within a year of their approval. Two are monitoring projects that will produce data in 2011 and may be supported for additional years as circumstances warrant. All of the integrated BiOp support studies are intended to support both BiOp preparation and subsequent adaptive management.
4. **Continue to Develop an Integrated BiOp.** The FWS and NMFS, with the Bureau of Reclamation, have begun preliminary work on an integrated BiOp addressing continued operation of the CVP and SWP in direct response to recommendations from the National Research Council..... [to be added to by FWS, BOR and NMFS]

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Other Federal Bay-Delta Initiatives

Introduction

BDCP is just one part of a larger effort of the Obama Administration to address California's critical water situation. [ADD, REFERENCE CAL. LEGISLATION, NEED FOR STATE TO TAKE LEADERSHIP, FEDS WILL BE PARTNERS, ETC.]

1. Encourage Improved Supply and Use of Bay-Delta Water by Strengthening Federal Water Conservation Efforts

Federal agencies are working together to maximize conservation and infrastructure development to increase the flexibility and reliability of the Bay-Delta's water supply. Under the Interim Federal Action Plan, Federal agencies have committed to undertake a number of activities in cooperation with the state of California and local governments to increase efficiency and reliability of the Bay-Delta water supply. These include facilitating water transfers and increasing water conservation and water recycling. Significant progress has been made in the past year and major milestones achieved.

Highlights:

1. A groundbreaking for the intertie between the Bureau of Reclamation (BOR) Delta-Mendota Canal and the State's California Aqueduct was held on October 14, 2010. This new pipeline and pumping plant will connect Federal and State water projects, enhance flexibility of water delivery, and allow maintenance and repair to take place on water supply infrastructure without disrupting water deliveries. The intertie is expected to be fully operational in 2012.

[SHOULD INCLUDE RED BLUFF DIVERSION AND FISH PASSAGE FACILITY]

2. In FY 2010, USDA's Natural Resources Conservation Service (NRCS) exceeded goal for implementing agricultural programs such as the Wetlands Reserve Program and the Agricultural Water Enhancement Program. Through these programs, NRCS works with farmers to improve water supply reliability by supporting activities that provide flood protection, conserve surface and groundwater, and contribute to groundwater recharge.
3. The BOR, NRCS, and the Environmental Protection Agency (EPA), in collaboration with State officials and stakeholders during workshops held over the summer, have identified a number of priority projects, which will increase water supply efficiency and reliability. The chosen priority projects will maximize the benefits of water conservation and infrastructure improvements in areas served by the CVP and SWP, working with the State and local partners to assist those areas most affected by the drought and by pumping restrictions. Projects include: new opportunities to combine Federal

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and state funding for water infrastructure projects, a water audit program that helps participating water agencies increase water efficiency, opportunities for State, local and tribal water supply reliability projects to receive supplementary funding from the Federal government, a water recycling project that will increase groundwater reliability for southern Los Angeles County, as well as projects that capture stormwater, develop backup water supplies, and other important activities. These projects will strengthen water supply reliability in the Bay-Delta, reducing vulnerability of water users who depend on this water for their lives and livelihoods, and will maximize efficient use of the water supply through conservation and recycling. These projects will be implemented by [_____?]

- a. The NRCS has been working to improve and protect the health of the Sacramento and San Joaquin River headwaters by restoring forest lands and meadows. Restored forests can provide enhanced groundwater storage, and restored meadows can slow water flow during flood events. This work bolsters the Bay-Delta's natural resources so that they protect the water supply in the event of a flood or drought. Kickoff meetings were held in June 2010 in 30 locations in California and with a live link. Contacts to collaborate on these efforts with state and regional governments have also been established.

2. Take a watershed approach to ensuring healthy Bay-Delta ecosystems and improving water quality

Under the Interim Federal Action Plan, Federal agencies have agreed to address the ecological health of the Bay-Delta. Federal agencies are collaborating to address the range of stressors affecting aquatic species of concern by restoring habitat, constructing hatcheries, preventing fish from being sucked into water diversions by installing fish screens, reducing contaminant levels in Bay-Delta water, and other activities. Each of these activities complement efforts to increase the populations of species of concern by improving water diversions and infrastructure, recognizing that flows alone cannot restore the Delta's ecology.

Highlights:

- Federal agencies have committed to significant habitat restoration as part of the BDCP, but are also conducting major restoration projects outside of the BDCP process to restore the habitat of threatened and endangered aquatic species. The groundbreaking ceremony for the Battle Creek Salmon and Steelhead Restoration Project to restore threatened and endangered aquatic species took place in September 2010. The wide-ranging partnership on the Battle Creek project includes the BOR, Pacific Gas and Electric, USFWS, NOAA

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Fisheries, and California's Department of Fish and Game (DFG). The project will provide fish passage for state and federally-listed spring-run Chinook salmon, winter-run Chinook Salmon, and steelhead. This project will restore approximately 42 miles of habitat on Battle Creek and an additional 6 miles of habitat on tributaries to Battle Creek while maintaining the continued production of hydroelectric power. The project is in Shasta and Tehama counties near Manton, California. The construction phase of the project is anticipated to be completed in 2014.

- EPA will issue an Advance Notice of Proposed Rulemaking (ANPR) to solicit scientific and policy input on the current state of water quality regulation in the Delta and its tributaries. The ANPR will focus on water quality impacts to Delta aquatic life from pollutants such as ammonia, selenium, pesticides, emerging contaminants (such as personal pharmaceutical products) and water quality factors that restrict estuarine habitat and migratory areas (i.e., salinity and temperature). The ANPR is expected to be released for public comment in December 2010.

[SOMEWHERE REFERENCE SWRCB ACTION RE; WASTEWATER AND/OR FLOW CRITERIA??]

- In order to address contaminants in the Bay-Delta, which harm threatened and endangered aquatic species, EPA is developing a general NPDES permit that sets new environmental requirements for pesticide applicators. . NOAA Fisheries is collaborating with EPA to evaluate and address the impacts of several pesticide, herbicide, and fungicide chemicals on endangered species, to ensure that these chemicals do not jeopardize the continued existence of these species or their habitat.
- The U.S. Fish and Wildlife Service (USFWS) is working with California's Department of Water Resources (DWR) and DFG as well as BOR to upgrade a backup refugium for delta smelt. This will aid in the long-term restoration of this endangered fish population. USFWS, BOR and DFG are also working together to develop a Delta Fish Restoration Facility.
- To reduce fish mortality at intake pumps, BOR is constructing a new pumping facility at the Tehama-Colusa Canal diversion and a fish screen for the Rock Slough diversion intake for the Contra Costa Canal, and will also construct a fish screen for the Patterson Irrigation District. The Rock Slough and Patterson intakes are two of the largest unscreened diversions in the Delta.

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- Funds were allocated to install groundwater wells in the Volta, Pixley and Gray Lodge wildlife refuges. These wells will help free up Central Valley Project water supplies which could then be redirected to agricultural and urban use.

3. Deliver drought relief services and ensure integrated flood risk management

Federal agencies are working together to help deliver drought relief services and ensure integrated flood risk management. Together with the state, these agencies will use disaster programs to provide drought relief to farmers and ranchers and to partner with state and local authorities to develop more holistic plans for stabilizing existing flood control infrastructure and manage flood risk.

Highlights:

- In 2010, the USDA NRCS released \$10 million for a special Environmental Quality Incentives Program Drought Initiative in the San Joaquin Valley. This funding allowed agricultural producers to provide temporary coverage to fallowed fields that were experiencing severe wind erosion, to rehabilitate springs for stock water, and to undertake other critically needed conservation measures. Resources for these special drought programs were also made available in 2009.
- The U.S. Army Corps of Engineers has awarded multiple contracts supporting the Central Valley Integrated Flood Management Study and the CALFED Levee Stability Program, which will identify smarter and more effective ways to balance competing floodplain uses as well as ways to undertake flood mitigation work. These projects contribute to the resilience of the Delta in the face of flooding. Interim completion deadlines for this work begin in 2011.

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